Easily known from *S. sinophilus* by the shining mesonotum with very strong punctures, pale reddish tarsi, much shorter second submarginal cell, and abdomen without hair-bands. Known from *S. leonis* Cockerell by the pale reddish stigma and very brown wings. The wings are much brower and the stigma is not so red as in *S. subincertus*. *S. perpunctatus* Cockerell, known only from the female, is very similar, but the stigma is larger and darker, and the area of metathorax quite different, with conspicuous raised ridges. *S. caffra* Brauns, of which I have seen the male, differs in venation and otherwise. There remains the briefly described *S. fuscipennis* Friese, known only in the female, 10 mm long. It is not impossible that our insect is the male of *S. fuscipennis*.

Scrapter sphecodoides Friese

Cape Province: Matjesfontein, October 16–21, 1928 (R. E. Turner). I have specimens from Cape Town collected by Peringuey.

Genus **Notomelitta** Cockerell

Notomelitta rufocincta, n. sp.

Male (type).—Length 12–12.5 mm, rather slender, with shining abdomen as in *N. politissima* Cockerell, which it closely resembles, but it differs by having the second and third abdominal segments, above and below, bright ferruginous, the tergites each with a very broad triangular black mark, based posteriorly; the first tergite is sometimes slightly reddish at sides, and the fourth sternite is largely reddish, while the fourth tergite is red at the extreme (usually covered) base. There is a variable amount of black hair on the thorax above, especially on the anterior part of the scutellum. The second submarginal cell has its outer side vertical, but the inner very oblique. The abdominal hair-bands are narrower than in *N. politissima*.

Female.—Length about 13 mm. Abdomen colored as in male. Hind basitarsi extremely broad, reddish, with mainly black hair, but white hair in front, and long white hairs at base. The front tarsi are not unusually long.

Natal: Van Reenen, Drakensberg, December 1926 (one male, January 1927). Five males, seven females. In my key in Ann. Mag. Nat. Hist., April 1934, this runs to *N. politissima*. In the key based on venation it runs near to *N. politissima*, but the third submarginal cell is less produced at end. In my key to *Melitta* in Ann. Transvaal Mus. **17**: 76. 1935, it runs nearest to *M. longicornis* Friese, which differs by the dullish, unbanded abdomen. All the specimens were collected by R. E. Turner.

ZOOLOGY.—*A new species of hoplonemertean* (Paranemertes biocellatus) *from the Gulf of Mexico.*[1]

WESLEY R. COE, Osborn Zoological Laboratory, Yale University, and Scripps Institution of Oceanography, University of California. (Communicated by WALDO L. SCHMITT.)

Among the nemerteans collected on the intertidal sand flats near Biloxi, Miss., were three specimens of an undescribed species of *Paranemertes* Coe. Only five other species of that genus have been previously reported; four of these were found on the Pacific coast of North America and one on the coast of South Africa. This new species presents such morphological deviations from the others that their description will supplement in some degree the available knowledge of nemertean morphology.

Individuals of this new species, which may be known as **Paranemertes biocellatus** resemble those of *P. californica*, found on the Pacific coast, in size and general appearance but differ in having the proboscis sheath nearly as long as the body, in the character of the proboscis armature, in size and shape of ocelli, and in other morphological details. The species also resembles *Amphiporus bioculatus* McIntosh in having a narrow, pointed head and a single pair of ocelli but differs widely in most other characteristics.

DESCRIPTION

Body long, moderately slender, pointed anteriorly and much flattened in intestinal region. Shape and general appearance similar to the published figure of *P. californica* (Coe, 1904, pl. 15, fig. 2). Size when mature 60 to 120 mm or more in length and 2 to 4 mm in width.

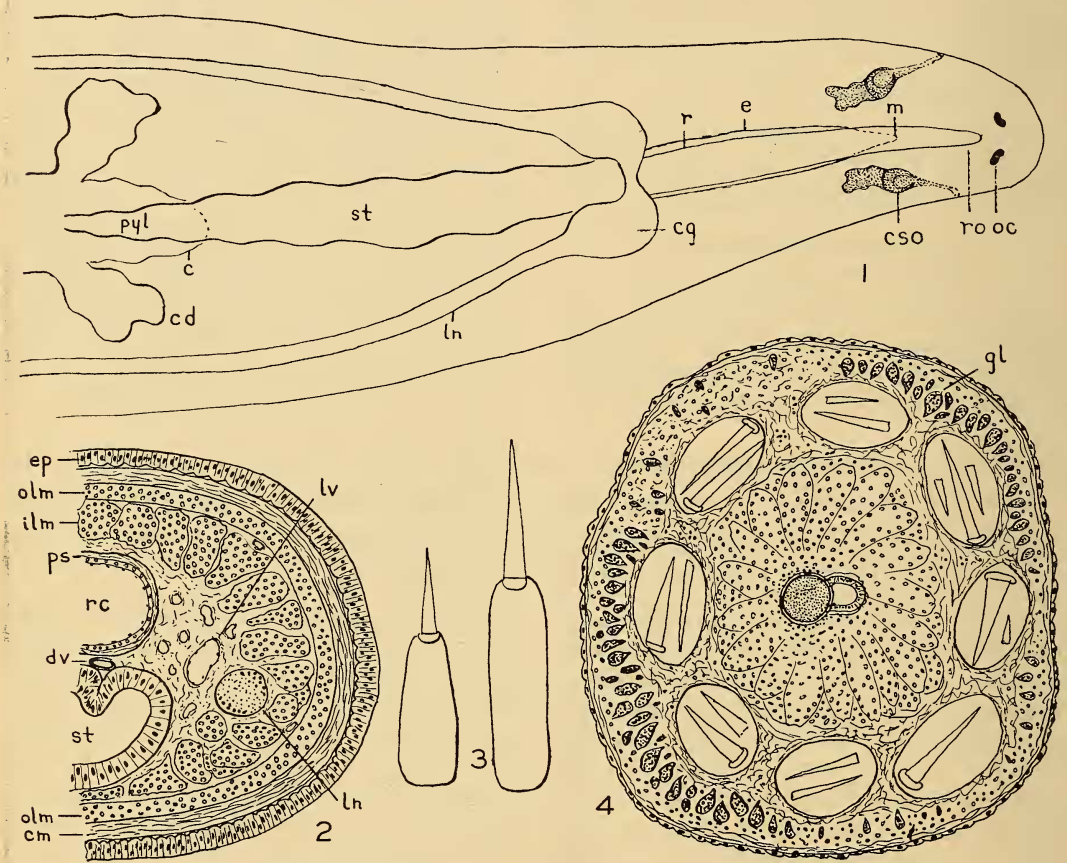
[1] Received October 5, 1944.
Contributions of the Scripps Institution of Oceanography, New Series No. 241.

Color.—Although no record is available as to the details of coloration in life, the specimens a short time after preservation were translucent, with a pale opalescence and tinges of green and rose anterior to the intestinal region. The rest of the body varied from pale to deep green, fading to colorless near the posterior extremity. The green color was confined mainly to the intestinal diverticula. The general appearance in life must have been similar to the colored figure of *P. californica* published by Coe (1904, pl. 15, fig. 2), although the colors were presumably paler than those shown in that figure.

After clearing in oil the tissues become pale yellowish with the exception of the intestinal diverticula, which retain their green pigmentation.

Ocelli.—The tip of the head is provided with a single pair of large, kidney-shaped, intensely black ocelli. These are always conspicuous after clearing in oil, and presumably also in life, although they are situated deep in the tissues of the head. In a specimen about 100 mm in length each ocellus measures 0.009 mm in length and 0.006 mm in diameter (Fig. 1).

Proboscis.—This species differs from the other described species of the genus in having



Paranemertes biocellatus, n. sp.: Fig. 1.—Diagram of organ systems in anterior end of body after clearing in oil; *c*, caecum; *cd*, caecal diverticulum; *cg*, cerebral ganglion; *cso*, cerebral sense organ; *e*, esophagus; *ln*, lateral nerve cord; *m*, opening of mouth into rhynchodeum; *oc*, ocellus; *pyl*, pylorus; *r*, rhynchodeum; *ro*, rhynchodeal opening on ventral surface of head; *st*, stomach. Fig. 2.—Portion of transverse section of body posterior to brain, showing the two layers of longitudinal muscles; *cm*, circular muscular layer; *dv*, dorsal blood vessel; *ep*, epithelium of body wall; *ilm*, inner layer of longitudinal muscles; *ln*, lateral nerve cord; *lv*, lateral blood vessel, with branches in surrounding parenchyma; *olm*, outer layer of longitudinal muscles; *ps*, proboscis sheath; *rc*, rhynchocoel; *st*, stomach. Fig. 3.—Central stylet and basis from two individuals. Fig. 4.—Diagram of transverse section through septum of proboscis, showing, in center, stylet basis and canal leading from anterior to posterior proboscis chamber, and longitudinal musculature surrounded by eight pouches of accessory stylets; *gl*, wreath of pigmented gland cells.

the proboscis sheath nearly as long as the body. The proboscis is armed with a slender, nearly cylindrical basis and with four or eight pouches of accessory stylets (Fig. 4). In one specimen the basis was of nearly equal diameter throughout the entire length and truncated posteriorly, while in another specimen it was slightly enlarged posteriorly (Fig. 3). In an individual exceeding 100 mm in length the basis was four times as long as its diameter, measuring 0.24 mm in length and 0.052 to 0.06 mm in diameter. In an individual 45 mm long the basis was only 0.016 mm long and 0.05 mm wide anteriorly and 0.07 mm posteriorly. The stylets are approximately two-thirds as long as the bases. The latter are deep brown in color. There are 12 proboscidial nerves.

Musculatures.—In this species, as in the others of the genus, the longitudinal musculature in the anterior portion of the body is divided into two distinct layers, as described and figured by Coe (1904, 1905) for *P. californica.* Of these, the outer layer is approximately equal to the circular layer in thickness, while the inner layer averages several times as thick. The two layers are separated by a thin sheet of connective tissue carrying numerous blood vessels and branches of the lateral peripheral nerves (Fig. 2). In the brain region this inner musculature closely invests the brain and esophagus and so nearly fills all the space between these organs and the outer muscular walls that the cephalic parenchyma is reduced to small patches. This inner longitudinal musculature is continuous with the proboscis insertion musculature.

In the region of the pylorus the sheet of connective tissue separating the two longitudinal musculatures becomes thicker but diminishes again anterior to the intestinal region, and the two layers become united more posteriorly. The inner portion can, however, be recognized by its larger fibers far back in the intestinal region.

Digestive system.—As shown in Fig. 1, the mouth opens by a long slit into the rhynchodeum some distance posterior to the rhynchodeal opening when the proboscis remains in its normal position within the body. The slender esophagus leads to the elongated stomach and thence to the slender pylorus, which opens into the midgut somewhat farther behind the brain than the distance from brain to tip of head. The caecum is remarkably short and bears but a single pair of diverticula (Fig. 1). The paired midgut diverticula are as in other species.

Blood and nephridial systems.—In the two specimens cut into serial sections the blood vessels were much contracted, both in the head and throughout the body. Near its origin from the cephalic anastomosis of the lateral vessels, the dorsal vessel passes into, but not through, the wall of the proboscis sheath for a short distance and then continues on the ventral side of the sheath to the posterior end of the body. There are numerous connections between the dorsal and lateral vessels.

In neither of the two specimens are the nephridial canals well preserved, nor could the efferent ducts be demonstrated. The same difficulty was encountered in two specimens of *P. californica* (Coe, 1905), although in a third specimen both the canals and the efferent ducts were conspicuous (Coe, 1940).

Nervous system.—The brain is situated farther back from the anterior end of the head than in most hoplonemerteans (Fig. 1). The four ganglia and their dorsal and ventral commissures are of the usual hoplonemertean type. The 12 proboscidial nerves are large and well differentiated from the interneural plexus. The lateral nerves unite posteriorly on the dorsal side of the rectum.

Cerebral sense organs.—These organs, with their sensory and glandular components, are relatively small, elongated structures situated far anterior to the brain. They are connected with the exterior by a pair of ciliated canals leading anterolaterally to the lateral surfaces of the head (Fig. 1).

Reproductive organs.—The gonads are of the usual hoplonemertean type, alternating more or less regularly with the intestinal diverticula. The gametes were not fully ripe in December.

Habitat.—These specimens were found burrowing in intertidal sand flats at Deer Island and at two other localities on the shore at Biloxi, Miss., by M. W. Williams. Cotypes, U.S.N.M. 20641.

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